Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE RADCLIFFE CATALOGUE FOR 1890.

This catalogue contains the positions of 6424 stars, from observations made at the Radcliffe Observatory, Oxford, under the direction of E. J. STONE, formerly Director of the Royal Observatory, Cape of Good Hope.

The list is intended to include all stars, down to the 7th magnitude, from the equator to 25° South Declination. In general, three observations have been given to each star, besides the much larger number for the fundamental stars, used for the determination of clock error and instrumental errors. The observations were made during the fourteen years from 1880 to 1893, inclusive, and have been reduced to the epoch 1890. The precession and secular variation are given for every star; and proper motion, when it appears to exist, by comparison with other catalogues.

The Right Ascensions depend upon the lists of the Greenwich Observatory, corrected by a constant obtained from observations of the Sun, extending over the greater part of the period.

The Declinations, or North Polar Distances of the catalogue, are obtained from observations of the zenith point, with a constant value of the N. P. D. of the zenith.

A comparison of the places deduced from upper and lower culminations, would indicate, as needed, a diminution of BESSEL'S refractions of 0.0035.

This, it may be noted, would bring the refraction corrections nearly into accord with those of the Pulkowa tables, which are based upon a constant 0.0027 less than that of BESSEL.

R. H. T.

THE ASTRONOMICAL PRIZES OF THE FRENCH ACADEMY.

The Astronomical prizes of the French Academy of Sciences for the year 1894 have been awarded as follows:

The LALANDE prize, value, 540 francs, to M. JAVELLE, an astronomer in the Nice Observatory, for his observations of faint nebulæ with the 30-inch equatorial. Since 1890, M. JAVELLE has discovered and accurately determined the positions of 1100 nebulæ in the zone comprised between Declinations + 30° and − 15°.

The DAMOISEAU prize, value, 1500 francs, to M. BRENDEL, for perfecting methods of rapidly calculating approximate values of the perturbations of the small planets for long intervals of time.

The VALZ prize, value, 460 francs, to M. CONIEL, a computer in the French Bureau of Longitudes, for the calculation of the orbits of 13 asteroids, and for other valuable computations.

The JANSSEN prize, a gold medal, to Professor GEORGE E. HALE, Director of the YERKES Observatory, University of Chicago, for successfully photographing the solar faculæ and prominences with the photoheliograph; for establishing an important new observatory, and for liberally contributing his personal resources to the needs of science. W. W. C.

A BRIEF REVIEW OF FROST'S TRANSLATION OF SCHEINER'S "DIE SPECTRALANALYSE DER GESTIRNE." *

About the year 1888 astronomical spectroscopy began to undergo a remarkable development. This development was characterized by rapidity, completeness and accuracy. It was due to several causes, among which we may mention: the application of photography; the construction of large telescopes; spectroscopes planned to yield the maximum efficiency in the particular lines of work undertaken; and, above all other causes, systematic work. As examples of this, it is sufficient to mention: VOGEL'S photographic determinations of stellar motions in the line of sight, by means of a spectroscope specially designed for that problem; the wholesale discovery of interesting and important objects by means of their photographed spectra at HARVARD College Observatory; ROWLAND'S improvements in diffraction gratings and his work on the solar spectrum; and KAYSER and RUNGE'S accurate determinations of wave-lengths in the spectra of the elements.

In the old astronomy the attainment of accuracy in making observations required that corrections for refraction, parallax, etc., be rigorously applied, and led to greater refinements in all lines of investigation. The working astronomer was obliged to use a great variety of formulæ in reducing his observations and in utilizing his own and previous results. Such handbooks as BRÜNNOW'S and CHAUVENET'S, WATSON'S and OPPOLZER'S,

---

* A treatise on Astronomical Spectroscopy, being a translation of "Die Spectralanalyse der Gestirne," by Professor Dr. J. SCHEINER, assistant at the Royal Astrophysical Observatory at Potsdam. Translated, revised and enlarged, with the coöperation of the author, by EDWIN BRANT FROST, M. A., Assistant Professor of Astronomy in Dartmouth College, Boston, 1894. GINN & Co.